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December 2018

## Santa's Radio Club Special Event on FT8

ARRL reports the annual **Santa's Radio Club Special Event** from 200 km above the Arctic Circle will be on the air between December 1<sup>st</sup> - 8<sup>th</sup> as OH9S (OH9Santa). Activity will be mainly on 160-6 meters using all modes, including FT8. QSL via Club Log's OQRS (preferred) or LoTW. Contacts will be automatically confirmed via the bureau. Operating from Finnish Lapland, OH9S will not employ any remote stations and will let propagation decide when and where contacts are

## SpaceX Launch



NASA commercial cargo provider SpaceX is targeting 1:38 p.m. EST on Tuesday, Dec 4<sup>th</sup>, for the launch of its 16<sup>th</sup> resupply mission to the International Space Station. Live coverage will begin on NASA Television and the agency's website. Monday, Dec 3<sup>rd</sup>, with prelaunch events. The Dragon spacecraft will carry supplies and payloads, including critical materials to directly support dozens of the more than 250 science and research investigations that will be worked by the space station's Expeditions 57 and 58 crews. <https://www.nasa.gov/nasalive>

## Hyperactive Comet Approaches Earth

A small but hyperactive comet named 46P/Wirtanen is nearing Earth for one of the 10 closest approaches by any comet of the Space Age. Wirtanen's emerald green atmosphere is now larger than the full Moon, and it is an increasingly easy target for binoculars and small telescopes. Naked-eye viewing could be just around the corner. Visit [Spaceweather.com](http://Spaceweather.com) for the full

## Es'hail-2 Update

Es'hail-2, carrying amateur radio transponders, launched from the Kennedy Space Center at 20:46 GMT on Thursday, November 15<sup>th</sup>, 2018. Es'hail-2 is still in a temporary GEO slot, according to the Keps at ~24°E. This is not the final location planned for 26°E. During the next months they will perform some fine tuning and extensive In-Orbit-Testing in this position not to interfere with other GEO satellites nearby. Once that is finished, the satellite will slowly be drifting to and stationed at

## Galway VHF Group

The Galway VHF Group reports that, since installation, the EI7RHD Repeater and the Multi-mode Digital Gateway, EI2GCD, are performing well and covering a wide area conforming to Radio Mobile predictions. The Wires-X gateway, EI2SHD, becomes very active during the Monday Fusion Nets at 8:30 pm. In the new year, there will be two more DMR Repeaters going online. These will cover Co Galway and Co Roscommon respectively. This will give saturation coverage out as far as Athlone where it is hoped that there will be additional Repeaters installed by other groups further to the East to cover the Dublin road. Meantime the activity on DMR has increased in the

## Morsum Magnificat Clears Archives

The Dutch society VERON reports the Morsum Magnificat magazine which was founded in 1983, will clean up its archives in February 2019. Morsum Magnificat was an international magazine published six times per year, featuring all aspects of Morse telegraphy, past present and future. First issued in the English language in 1986 it ceased publication in March 2004. The common theme on every page was Morse and all other aspects of land-line and wireless telegraphy. The archives contain, among other things, folders with original documents, and exchanges of letters, often with photos of meetings. Although Morsum Magnificat has not been published

## Galway Digital Radio Lecture

The Galway VHF Group will be holding a lecture on Digital Radio in the Insight Building - part of the UCG Data Science Institute located in the IDA Business Park, Lower Dangan (opposite the Westwood Hotel), Galway.

The Lecture will commence at 8:00 pm sharp on Tuesday the 4<sup>th</sup> of December. This lecture has been facilitated by Insight Centre for Data Analytics, NUI.

The lecture covers:

- 1) The introduction of Digital radio to the Amateur Fraternity in 2004
- 2) Basic Building Blocks of the Digital System
- 3) Modes Available
- 4) Yaesu Fusion
- 5) DMR
- 6) DMR Radios
- 7) The development of the West of Ireland DMR Network
- 8) The Galway Analog and Fusion System run by the Galway

**IRTS AGM 2019**

**13/14 April 2019**

**Hodson Bay Hotel, Athlone**

**Lectures, Dinner, Radio & Electronics Fair and AGM**

**Hosted by Shannon Basin Radio Club**

**Preliminary information on [www.irts.ie/agm](http://www.irts.ie/agm)**

**Email [info@shannonbasinradioclub.com](mailto:info@shannonbasinradioclub.com)**

## New DMR Repeaters Ready for the Airwaves

Two new digital Repeaters will be coming online shortly. EI7BCR will be located at Three Rock in the Dublin Mountains and will have DMR ID of 272222. This should give excellent coverage of the capital city and will be a great addition to the digital network in Ireland. The second repeater EI7LLD is located near Kingscourt, Co Cavan. This will have DMR ID 272223. This should give good coverage of Dundalk and the area to the north-west of Dublin. Ronnie, EI9ED is currently

## Software Defined Doppler Radar

Want to explore the world of radar but feel daunted by the mysteries of radio frequency electronics? Be daunted no more and abstract the RF complexities away with this tutorial on software-defined radar.

Taking inspiration from Gregory L. Charvat, N8ZRY, Luigi Freitas' plunge into radar is spare on the budgetary side but rich in learning opportunities.

The front end of the radar set is almost entirely contained in a LimeSDR Mini, a software-defined radio that can both transmit and receive. The only additional components are a pair of soup can antennas and a cheap LNA for the receive side.

The rest of the system runs on GNU Radio Companion running on a Raspberry Pi; the whole thing is powered by a USB battery pack, Luigi has the radar set up for the 2.4 GHz band, and the video below shows it being calibrated with vehicles passing by at known speeds.

<https://hackaday.com/2018/11/29/sdr-is-at-the-heart-of-this-soup-can-doppler-radar-set/>

Luigi Freitas PU2SPY Software Defined Radar tutorial  
<https://luigifreitas.me/2018-11-23/software-defined-radar-cw-doppler-radar-with-limesdr>

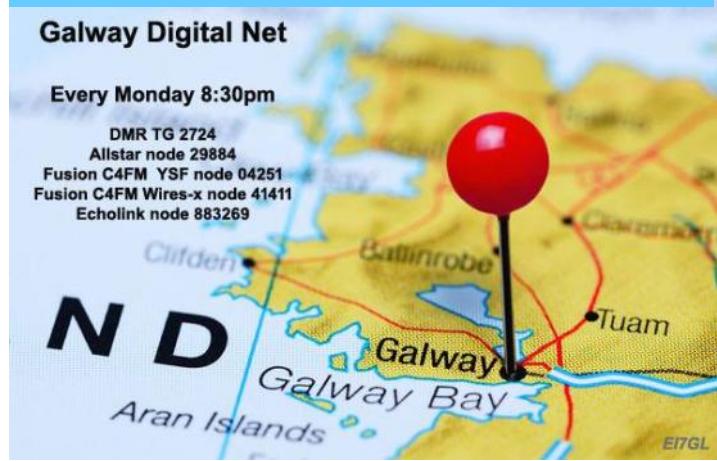
# Seasons Greetings

## Local Nets

### Galway Digital Net

Every Monday 8:30pm

DMR TG 2724  
Allstar node 29884  
Fusion C4FM YSF node 04251  
Fusion C4FM Wires-x node 41411  
Echolink node 883269



### EI VHF Activity Nights

1st Tuesday of the month - 2m  
2nd Tuesday of the month - 70cms  
3rd Tuesday of the month - 4m & 6m  
4th Tuesday of the month - Digital

Approx 7 to 10pm.



## Shannon Basin 2m Net

The Shannon Basin Radio Club is holding a net on 145.350 MHz every Thursday between 20:00 and 20:30. Both members and non members are welcome with the aim of



## Contests – December 2018

[WA7BNM Contest Calendar](#) : [RSGB HF Contests](#) : [UKEICC Contests](#) : [IRTS Contests](#)

Fri 30 Nov	22:00	42 hours	<a href="#">ARRL 160m CW</a>	160m, work W/VE, log ARRL/RAC section
Sat 1	18:00	30 hours	<a href="#">FT8 Roundup</a>	80-10m, work everyone, send serial, log State from W/VE
Sat 1	20:00	24 hours	<a href="#">EPC Ukraine BPSK63</a>	80-10m, work everyone, send serial, log Ukraine Region
Sat 8	00:00	48 hours	<a href="#">ARRL 10m SSB/CW</a>	10m, work everyone, send serial, log State from W/VE/XE
Fri 14	20:00	4 hours	<a href="#">Russian 160m SSB/CW</a>	160m, work everyone, exchange serials, log Russian Oblasts
Sat 15	14:00	24 hours	<a href="#">Croatian CW</a>	160-10m, work everyone, exchange serials
Wed 26	08:30	2.5 hours	<a href="#">DARC Xmas Contest SSB/CW</a>	80-40m, work everyone, send serial, log DOK, QSY Rule
Sat 29	00:00	24 hours	<a href="#">RAC Winter (all modes)</a>	160-2m, work everyone, send serial, log province from VE
Sat 29	15:00	24 hours	<a href="#">Stew Perry Topband CW</a>	160m, exchange four character grid (e.g. IO62)
Every	Wed	60 mins	<a href="#">CWops Mini Contests</a>	160-10m, three separate CW contests

Reminder: [IRTS 80m Counties Contest](#) (SSB/CW) Tue 1 Jan 2019, 15:00 UTC for 2 hours.

List compiled by Joe [EI7GY](#) (All times are UTC)